201-15459

rdenison@environmentaldefense.org

07/14/2004 10:47 PM

To: NCIC OPPT@EPA, ChemRTK HPV@EPA, Rtk Chem@EPA, NCIC HPV@EPA, Karen Boswell/DC/USEPA/US@EPA, ggarvin@dow.com
cc: MTC@mchsi.com, kflorini@environmentaldefense.org, rdenison@environmentaldefense.org
Subject: Environmental Defense comments on Chloropyridine Derivatives (CAS# 68412-40-8)

(Submitted via Internet 7/14/04 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov, boswell.karen@epa.gov, chem.rtk@epa.gov, MTC@mchsi.com, and ggarvin@dow.com)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for Chloropyridine Derivatives (CAS# 68412-40-8).

The Dow Chemical Company, in response to EPA's High Production Volume (HPV) Chemical Challenge, has submitted a test plan and robust summaries describing minimal information to address the required SIDS elements for chloropyridine derivatives. This submission is virtually identical to that submitted earlier for methyl chloropyridine derivatives. The only significant difference appears to be the number at the top of the first page -- and that is an EPA-assigned number. Thus, our comments are very similar to those submitted for methyl chloropyridine derivatives.

We note on reading the test plan that the Plain English Summary states that "Existing data are summarized. No additional data are needed under the HPV Challenge Program." However, no data addressing the required SIDS elements for this chemical stream are in fact summarized in the test plan, and the only data provided in the robust summaries are for the proposed surrogate, 2,3,4,5,6- pentachloropyridine. For the following reasons, we do not agree with Dow's conclusion that no additional data are needed. We also note the following inconsistencies on review of this submission.

1. The Introduction of the test plan states that physicochemical data that are requested will be provided. However, only such data for the proposed surrogate have been provided. No explanation is given as to why a company that produces more than a million pounds of a chemical stream each year cannot provide these most basic data that they probably use in their production of this chemical stream.

2. Under Test Plan Rationale, it is stated that this derivative stream should be regarded as a site-limited closed system intermediate. It is further stated that the stream is loaded into pressure vessels and incinerated in Freeport, Texas where it is produced. However, on review of the robust summaries we note that the approximately 25% of the surrogate chemical on which the robust summaries are based, pentachloropyridine, is produced in California and shipped to Texas in tank cars for use in pesticide synthesis. Thus, it would appear that not all chloropyridine derivatives qualify as closed system intermediates, and we defer to EPA as to whether this stream qualifies.

3. The test plan consists primarily of a list of the required SIDS elements, but does not describe any data ? from the proposed surrogate or otherwise ? to address them. Some data to address some elements for pentachloropyridine are provided in the robust summaries. However, the

sponsor has provided no rationale for the use of pentachloropyridine as a surrogate other than to note that it is a component of the sponsored stream. No compositional data on the stream have been provided. We do not think pentachloropyridine is an acceptable representative of the chloropyridine derivatives stream. That is, since pentachloropyridine is a completely chlorinated molecule it would be expected to be the least soluble, least reactive and most slowly metabolized of the chlorinated pyridines. Less chlorinated pyridines may be significantly more toxic. The physicochemical properties of pentachloropyridine will also differ significantly from those of the less chlorinated members of this group of chemicals. In sum, the sponsor has not provided sufficient justification for using pentachloropyridine as a surrogate for chloropyridine derivatives.

4. One study described in the robust summaries indicates that only three animals were used; however, it lists a range of doses administered. We assume that the study used three animals per dose. This should be clarified. Moreover, no results of this study are described, but it is still considered by the sponsor an acceptable study. How can that be?

This submission is inadequate to meet the requirements of the HPV Challenge. Narrative provided in the test plan to describe the properties of these chemicals, their uses and their potential for release is cursory and largely uninformative. No data are provided to address the required SIDS elements and additional studies to generate required data are not proposed. Data described for pentachloropyridine in the robust summaries are not in our view appropriate to address the SIDS elements for all chloropyridine derivatives. Thus, the chloropyridine derivatives stream should be subject to a full range of studies to address the SIDS elements required by the HPV Challenge.

In summary, it is our opinion that this incomplete and disorganized submission represents a minimal effort to comply with the HPV Challenge for chloropyridine derivatives and is not acceptable.

Thank you for this opportunity to comment.

Hazel B. Matthews, Ph.D.
Consulting Toxicologist, Environmental Defense

Richard Denison, Ph.D.
Senior Scientist, Environmental Defense